

ABSTRACT OF THE DISCLOSURE

An electric motor with a stator structure having a high thermal conductivity from coils to a stator core, and capable of suppressing vibration of coils and adjusting an output torque and a cogging amount of the motor. A stator core is provided at its inner periphery with main teeth extending radially and spaced at regular intervals from one another. Auxiliary teeth are provided in slots formed between adjacent main teeth. Coils are arranged such that, when wound around the main teeth, their outer peripheral faces are in close contact with the auxiliary teeth. Since the coils are in contact at their central portions with the main teeth and in close contact at their outer peripheral portions with the auxiliary teeth, heat generated from the coils energized is efficiently conducted to the stator core, and removed by cooling devices provided at outer peripheral portions of the stator, thereby cooling the motor. Since the coils are fixedly held between the main and auxiliary teeth, vibration can be prevented. By adjusting the length of the auxiliary teeth, the output torque and the cogging amount can be adjusted.